

**Work Order ID 65467**

January 18, 2011 10:30:22 AM



Page 1

Item ID: D3475-7

Accept



Setup Start



Revision ID:

Item Name: Scoop Outlet

Stop



Start Date: 1/18/11 Start Qty: 5.00



Cust Item ID:

Required Date: 1/31/11 Req'd Qty: 5.00



Customer:

Reference:

Approvals: Process Plan: CL

Date: 11/01/18 Tooling:

Date:

Run Start



QC: \_\_\_\_\_

Date: \_\_\_\_\_ SPC (Y/N):

Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3475	Rev C

100 \_\_\_\_\_ 0.00



PURCHASING

Purchasing

Memo

Purchasing

Issue P/O: 13313 For D3475-7S

Spin as per Dwg D3475

Possible Supplier: SIEG

Material release note is required

CL 11/01/18 ⑤

110 \_\_\_\_\_ 0.00



Receive &amp; Inspect for Damage &amp; Mat'l Certs

Packaging

Memo

Packaging

Ensure material certification is attached

Lap/SP ⑥

120 \_\_\_\_\_ 0.00



QC6- Inspect dimensions to drawing

QC

Memo

Quality Control

S. Warkot

0.00

(ES) \_\_\_\_\_

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130



Small Fab

Small Fab

Memo

0.00

1/18/07

140



QC5- Inspect part completeness to step on W/O

0.00

1/18/08

QC

Quality Control

Memo

0.00

(10) (1 part = 2 pieces)

150



Identify as per dwg &amp; Stock Location:

0.00

Packaging

Packaging

Memo

0.00

(10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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NOTE: Date & initial all entries

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Item Name: Scoop Outlet

Start Date: 1/18/11 Start Qty: 5.00



Cust Item ID:

Required Date: 1/31/11 Req'd Qty: 5.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160



QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

1602/08 JJ

MF  
11-02-08

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Page 1

January 18, 2011 10:30:22 AM

Work Order ID: 65467



Parent Item: D3475-7



Parent Item Name: Scoop Outlet

Start Date: 1/18/11

Required Date: 1/31/11

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP Rev:A New Issue 06-01-31 JLM  
IPP Rev:B As per Rev B 06-05-24 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3475-7S		Purchased		No		110	Each	0.0000	1	5		1/18/11	5

Scoop Outlet Flat Pattern

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	65467
Description: Scoop Outlet	Part Number:	D3475-7
Inspection Dwg: D3475 Rev: C		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

## X First Article X Prototype

Measured by:	
Date:	11/02/08

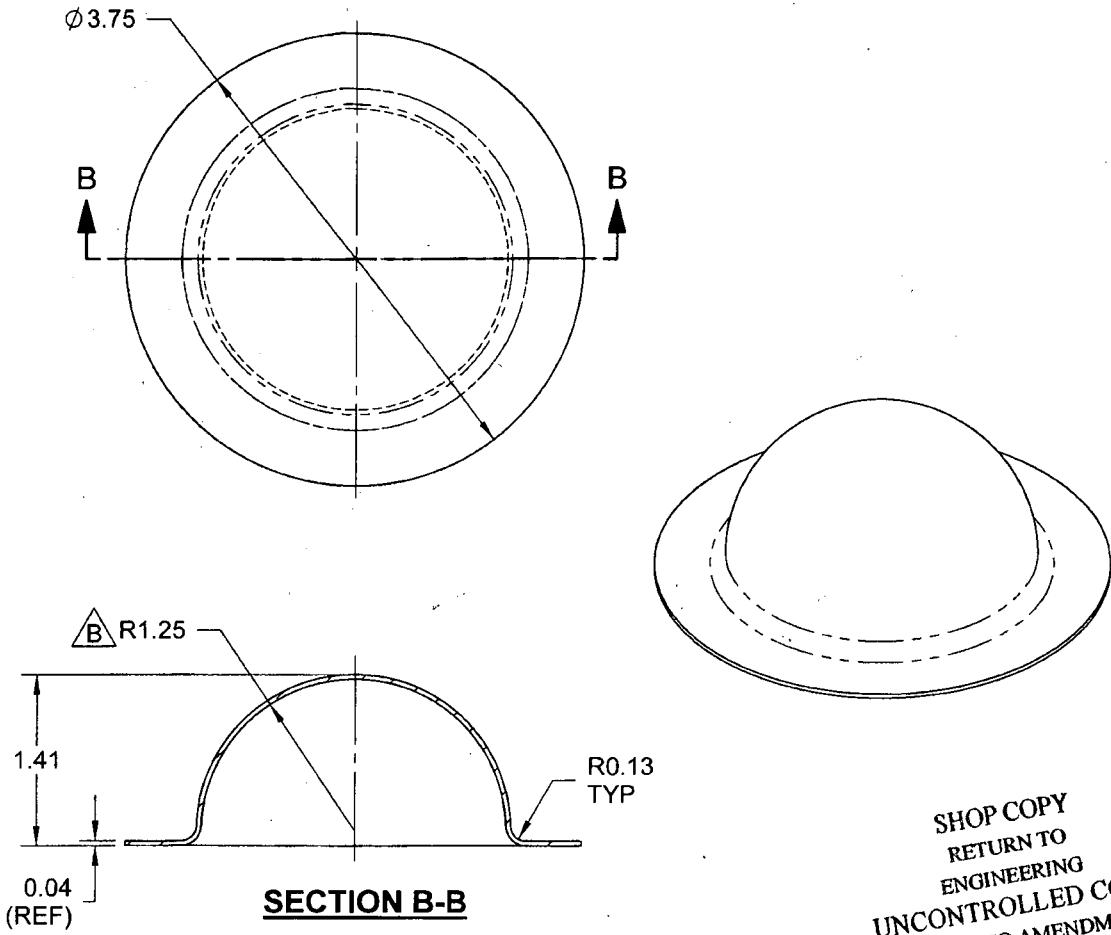
Audited by:	S
Date:	11/21/08

<b>Prototype Approval:</b>	
<b>Date:</b>	

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

**DART**

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>RH</i>	APPROVED <i>A</i>	DRAWING NO. D3475	REV. C	SHEET 5 OF 7
DATE 08.12.19	TITLE DUMP OUTLET	SCALE 1:1.5		

**RELEASED**  
09/01/30 My**D3475-7S SCOOP OUTLET, SPINNING DETAIL**

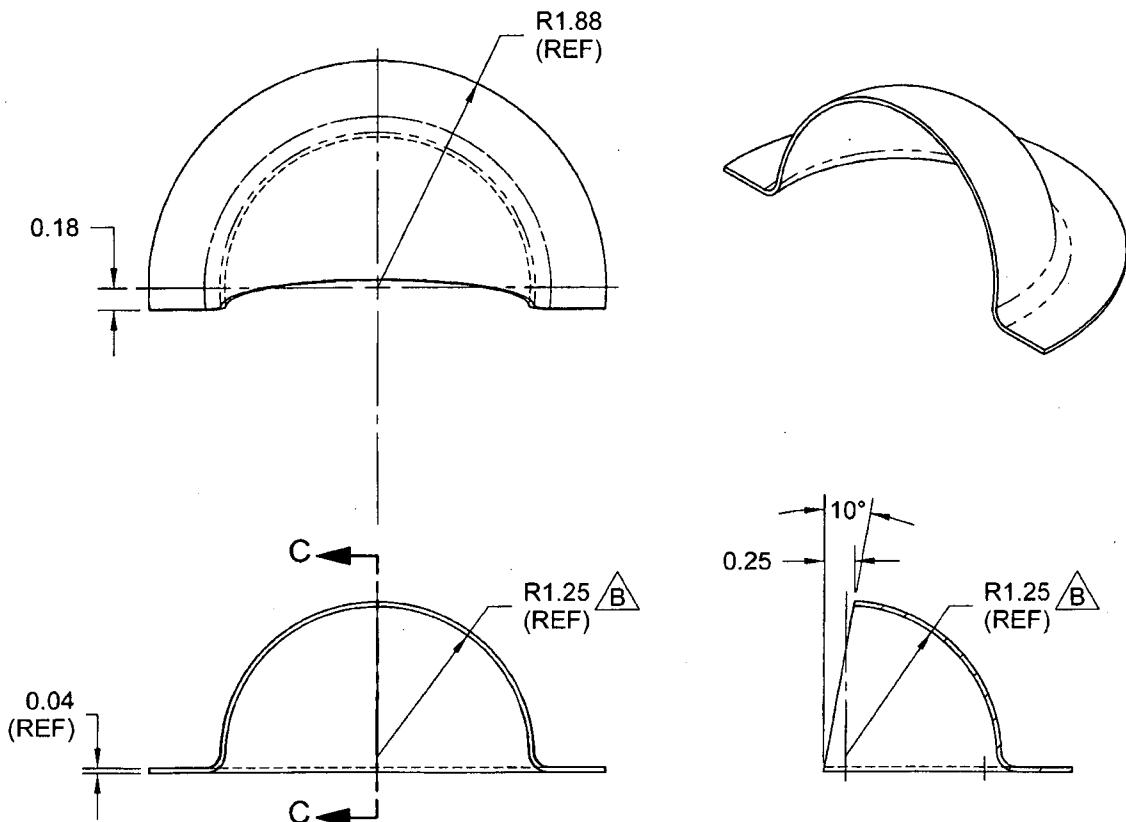
SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. *65467*  
*CL 11/01/18*

**NOTES:**

- 1) MATERIAL: 2024-0 ALUMINUM SHEET, 0.040" THICK PER AMS-QQ-A-250/4  
OR AMS 4037 (REF. DART SPEC. M2024T0S.040)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

**DART**

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>PH</i>	APPROVED <i>TH</i>	DRAWING NO. D3475	REV. C SHEET 6 OF 7
DATE 08.12.19	TITLE DUMP OUTLET	SCALE 1:1.5	

**RELEASED**  
*09/01/30 MP***△ D3475-7 SCOOP OUTLET****SECTION C-C**

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 65467

**NOTES:**

- 1) MATERIAL: MAKE FROM D3475-7S
- 2) IDENTIFY WITH DART P/N D3475-7 USING FINE POINT PERMANENT INK MARKER
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO13313

Purchase Order Date 1/18/11

PO Print Date 1/18/11

Page Number 1 of 1

Order From :  
SIEG'S MANUFACTURING LTD.  
6236 - 205 STREET  
LANGLEY, BC V2Y 1N7  
CA

VC-SIE001

Contact Name  
Vendor Phone 604 530 7455  
Vendor Fax 604 530 7490  
Vendor Account Nbr

Buyer Chantal Lavoie  
Requisition Nbr  
Tax Resale Nbr 10127-2607  
Terms Net 30  
Currency CAD  
FOB Destination-Collect

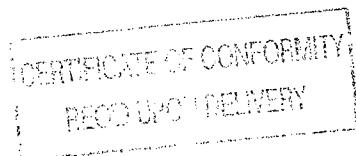
Ship To : DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

~~PICKED~~  
~~PAID~~

Line Nbr	Reference Revision ID	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D3475-7S	Scoop Outlet Flat Pattern	1/26/11 Yes	5.00 Each	FedEx PI collect	\$6.5300	\$32.65

Special Inst: AS PER DWG D3475 REV. C  
B65467

PO Total: \$32.65



No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required when applicable

Change Nbr: 1

Change Date: 1/18/11



# Sieg's Manufacturing Ltd. Packing Slip

Metal Spinning & Fabricating

6236 205 Street

Langley, BC, Canada V2Y 1N7

Phone:(604)530 7455 Fax:(604)530-7490

Packing Slip No.:

38783

Date:

02/02/2011

Page:

1

## Sold to:

DART AEROSPACE LTD.  
1270 ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

## Ship to:

DART AEROSPACE LTD.  
1270 ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

Order No.:

(3313)

Sold By: KAULBARS, ARLA

Shipped By:

Ship Date: 02/02/2011

Tracking No.:

Item No.	Unit	Description	Quantity
D3475-7S	Each	SCOOP OUTLET PATTERN	5

Comment:

81102107

**Sieg's Manufacturing Ltd.**

Metal Spinning and Fabricating

6236 - 205 STREET, LANGLEY, B.C. V2Y 1N7

TELEPHONE: (604) 530-7455 • FAX: (604) 530-7490

*Up  
After Chantal***INSPECTION REPORT**Date: Feb 3/11Customer: Dart AerospacePacking Slip: 38783

Part#:	Quantity	Material	Check holes	Debur edges	Insp. By
D3475-75	5	2024-0	N/A	✓	Ø

Notes:

8/1/02/09Alcoa # 12227640Material Certification Attached: ✓

9382524749

**CERTIFIED INSPECTION REPORT**

We hereby certify that the establishment covered by this certificate has been inspected this day, and has been found to meet all the applicable requirements described herein, including any specifications listed as a part of the description and that each establishment representative of the business surveyed has consented as to its condition and the mechanical properties according to the attached Certificate on Clean - Per

*Robert Beyle  
ABC Quality Assurance Manager*

**Ship To:** No address found

Glied

Alcoa Europe SA

AISC Facilitator Handbook

Ship from ATSC-Paal, Belgium  
Album No. Item Page

Sulz 07

**Ship To:** No ship address found      **Item Description:**  
 Alcold 2024-O .000x18x14 IN FLAT SHEET MIL  
 001175 003, (MARKED) WAX PAPER INTERLEAVED

Line	Package	Ticket	Lot	Weight	Quantity	UOM	Pc Id/Ser#
1		56725	113635	2039	73	PC	

PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF ASB-QQ-A-350/5 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/5F, AMENDMENT 3.  
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/5F, AMENDMENT 2 ALSO MEETS THE REQUIREMENTS OF AN-S-QQ-A-250/5.

**CQR: 0118812.5 -Specification Limits**

**Find attached Certificate for Material Origin.**

**55C745**

MAR 27 2009

061632

## CERTIFIED INSPECTION REPORT

We herby certify that the article has been manufactured and has been found to meet the applicable requirements described herein, including any specifications having a part of the description and may samples representative of the material and the composition tests and had the mechanical properties shown on the face of this sheet.

*Mark J. Vester*  
Mark J. Vester  
Director of Manufacturing Davenport Works

*Karen P. Young*  
Karen P. Young  
Quality Assurance Manager

## Alcoa Inc.

## PITTSBURGH, PA DAVENPORT WORKS

Ship From: DAVENPORT, IA.

Page 2

161281	0	H.L. No.	Invoice No.	Alcoa No. Item
2007-03-27		15982694	00000	12427660
P.O. No./Cont Contract No.		CustLocat		
88CH-5400941873- ALEXIA 996153				

CQR: 0118812.5 - Material Origin Item Description -----  
 1040 IN TK X 48.0 IN W X 144.0 IN LN AL28 A/T 2024-0 14-200BA AMS-QQ-A-250/5 RE  
 V A. QRA-001175 REV 000 ((MARKED)) MAX PAPER INTERLEAVED CQR 0118812 REV 5

Lot: 113635 - Mechanical, Physical, Metallography, Quantometer Results -----

Temp	Dir	Mo->	UTS	TYS	EL40
			Test	KSI	PCT
0	Long Transv.	2	22.8	11.4	20.5
			23	11.5	20
Temp	Dir		UTS	TYS	EL40
T43	Long Transv.	2	KSI	KSI	PCT
			61.3	38.2	23.5
			62	38.6	21
Temp	Dir		UTS	TYS	EL40
T62	Long Transv.	2	KSI	KSI	PCT
			61.3	48.5	20.5
			61.3	47.7	11.5

Cast Number: 99931015 Chemical: Si Fe Cu Mn Mo Cr Zn Ti  
 Actuals: 0.07 0.14 6.6 0.63 1.5 0.00 0.09 0.03

This material was melted in the United States or a Qualifying Country (REF: SPARA 225.072.1(a)); it was manufactured in the United States

FORM: 1006

WORKORDER: 2401093731

## COPPER AND BRASS SALES

MATERIAL TYPE

ALUMINIUM ALLOYS

PRODUCT DESIGNATION

2014 2024 2224 2324 7050 7075 7150 7175 7475 ALUMEC 89 ALUMEC 99 QC-7

### "WARNING"

SMALL CHIPS,FINE TURNINGS AND DUST MAY IGNITE READILY.EXPLOSION POTENTIAL MAY BE PRESENT WHEN:DUST OR FINES ARE DISPERSED IN THE AIR; FINE, DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH CERTAIN METAL OXIDES; OR,CHIPS,FINES,DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH WATER OR MOISTURE.KEEP AWAY FROM IGNITION SOURCE.USE EXPLOSION-PROOF VENTILATION.KEEP MATERIAL DRY.

THIS PRODUCT CONTAINS BERYLLIUM AND COPPER. INHALING BERYLLIUM DUST OR FUMES MAY CAUSE CHRONIC BERYLLIUM DISEASE (CBD), A SERIOUS CHRONIC LUNG DISEASE IN SOME INDIVIDUALS. BERYLLIUM IS A CANCER HAZARD; OVER TIME CBD AND CANCER CAN BE FATAL. TARGET ORGAN IS PRIMARILY THE LUNG. INHALING LARGE AMOUNTS OF COPPER, MAGNESIUM OXIDE, MANGANESE OXIDE, AND ZINC OXIDE FUMES OR DUST MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS. CHRONIC OVEREXPOSURE TO COPPER MAY CAUSE THICKENING OF THE SKIN; AND SKIN, TEETH, AND HAIR DISCOLORATION. CHRONIC OVEREXPOSURE TO MANGANESE DUST CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE, SCARRING OF THE LUNGS AND REPRODUCTIVE HARM IN MALES. TARGET ORGAN IS PRIMARILY THE LUNG, BUT REPEATED HIGH EXPOSURE CAN ALSO AFFECT THE LIVER. CHRONIC OVEREXPOSURE TO IRON OXIDE DUST/FUME MAY CAUSE LUNG SIDEROSIS. CHRONIC OVEREXPOSURE TO SILICON DUST CAN CAUSE CHRONIC BRONCHITIS. OVEREXPOSURE TO AMORPHOUS SILICA CAN CAUSE DRYING OF THE MUCOUS MEMBRANES OF THE EYES, NOSE, AND THROAT.

THIS PRODUCT ALSO CONTAINS NICKEL AND CHROMIUM COMPOUNDS. INHALATION OF NICKEL DUST OR FUME MAY RESULT IN INFLAMMATION OF THE RESPIRATORY TRACT AND CAUSE NASAL AND/OR LUNG CANCER. NICKEL HAS BEEN IDENTIFIED AS A POTENTIAL HUMAN CARCINOGEN. EXPOSURE TO CHROMIUM DUST OR FUMES MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS AND KIDNEY AND LIVER DAMAGE. UNDER HIGH TEMPERATURES, HEXAVALENT CHROMIUM MAY BE PRODUCED, IF IN THE INSOLUBLE FORM, IT IS A CONFIRMED HUMAN CARCINOGEN (CALIFORNIA PROPOSITION 65).

IF COATED WITH OIL, MAY CAUSE SKIN IRRITATION/DERMATITIS BY CONTACT. WELDING FUME IS LISTED AS A POSSIBLE CARCINOGENIC TO HUMANS.  
READ THE ALUMINUM/ALUMINIUM ALLOYS MATERIAL SAFETY DATA SHEET (MSDS) ON FILE WITH YOUR EMPLOYER BEFORE WORKING WITH THIS MATERIAL.

\* If processing or recycling produces particulate, use exhaust ventilation or other controls designed to prevent exposure to workers. Examples of such activities include melting, welding, grinding, abrasive sawing, sanding and polishing. Any activity which abrades the surface of this material can generate airborne particulate. Use appropriate NIOSH approved respiratory protection (P95; P100 for lead with, quantitative fit testing required) if exposures exceed the permissible limits.

\* The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational exposures.

\* Aluminum, in solid form and as contained in finished products presents no special health risk.

\* Sold for manufacturing purposes only. This product can be recycled; contact your sales representative.

For additional information, call or write to Copper and Brass Sales, 22355 West Eleven Mile Road, Southfield, MI 48033, telephone 248-233-5600, or visit our web site @ [www.copperandbrass.com](http://www.copperandbrass.com).

ALUMINUM LABEL NO. 300-1056

ISSUED 10/01/2008